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        A method and apparatus for driving lasers. An example
laser driving system includes a laser current controller for
providing a modulation signal and a bias signal. The
5 modulation signal and bias signal is used by a plurality of
high-speed current drivers that accept the modulation signal
and the bias signal and produce a plurality of laser drive
signals. The example system also has a disable input that
disconnects power from a high-speed current driver when the
10 high-speed current driver is not in use. The exemplary system
develops the modulation and bias signals by feeding back a
signal developed from detection of laser light from one of the
lasers driven by the system. The laser may be a data laser or
a control laser that is modulated by a signal having a lower
15 frequency than the data lasers. If a control laser is used
then the photodetector circuit used for feedback can have a
lower frequency response because of the lower frequency of the
control laser signal. The photodetector system may also
employ a peak detector capacitor discharge circuit where a
20 large capacitance is simulated by having the capacitor
discharge through the base of a transistor have a current
source in the emitter circuit.

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